CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	BLM Big Foot Alternative Practice
Proposed Implementation Date:	Fall 2023
Proponent:	Bureau of Land Management (BLM)
Location:	Sec 17 T4N R4W
County:	Jefferson

I. TYPE AND PURPOSE OF ACTION

The Bureau of Land Management (BLM) is requesting an Alternative Practice (AP) to allow the harvest of insect impacted trees and reduce seed crop of encroaching conifers. This project is within an area that is considered conifer encroachment and has been significantly impacted by western spruce budworm and mountain pine beetle. This AP would facilitate safe removal of trees to meet agency objectives of reducing forest encroachment.

BLM is requesting an AP to the Streamside Management Zone Law for State Creek. The lineal extent along the stream is approximately 1,500'. There are two requests to salvage insect impacted trees (Douglas-fir) and unhealthy suppressed conifers to reduce forest encroachment within the Streamside Management Zone (SMZ). State Creek is a Class 1 stream which normally requires retention of 10 trees (over 8" DBH) per 100' segment (SMZ Rule 5 (36.11.305)). The second requested AP is to operate a wheeled or tracked vehicle within the SMZ (SMZ Rule 4 (36.11.304)).

According to MCA 77-5-301 through 307, DNRC is authorized to administer and enforce the provisions of the SMZ Law. This Law was developed to protect the public interest of water quality and quantity within forested areas; provide for standards, oversights, and penalties to ensure forest practices conserve the integrity of SMZ's; provide guidelines for wildlife management within SMZ's; and allow operators necessary flexibility to use practices appropriate to site-specific conditions in the SMZ. ARM 36.11.301 through 313 further specify the design of SMZ boundaries, allowable activities, and prohibitions within the SMZ, penalties and other related provisions.

According to MCA 77-5-304 and ARM 36.11.310, DNRC may approve alternative practices that are different from practices required by the SMZ Law only if such practices would be otherwise lawful and continue to conserve or not significantly diminish the integrity and function of the SMZ. This AP would allow for the 2 requests listed above. Additional stipulations of this request would include:

1. Operate machinery within the SMZ on slopes <25% and never closer than 15 feet from the ordinary high-water mark (OHWM).

2. Operations will occur only during periods when ground disturbance can be minimized under conditions of:
    a. Dry conditions (less than 20% ground moisture), or
    b. Frozen ground to a depth of six inches and/or snow depth is consistently a minimum of 12 inches. If significant soil disturbance is evident (machinery breaking through crust and/or sinking into the soil) then operations must stop immediately.

3. If operations take place during periods of dry ground conditions, mitigation measures would include grass seeding and slash filter windrows placed on disturbed areas to prevent runoff and sediment from reaching the stream.

4. All skidding operations will be straight in/out of the SMZ. Perpendicular to the stream channel except when skidding on the existing two track road. The lead-end of logs must be suspended and skidded free of the ground. Apply grass seed to disturbed areas withing the SMZ to reduce the risk of erosion.

5. Protect live hardwood species and maintain all healthy Douglas-fir. Retain minimum 10 healthy trees 8" per 100' stream where available. Fully protect insect/disease free sub-merchantable trees and brush species possible.

6. Trees will be designated and marked for cutting before harvest operations begin. Marked trees will be directionally felled away from the creek.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:
Provide a brief chronology of the scoping and ongoing involvement for this project. List number of individuals contacted, number of responses received, and newspapers in which notices were placed and for how long. Briefly summarize issues received from the public.

State of Montana Department of Natural Resources and Conservation (DNRC) and USDI Bureau of Land Management (BLM).

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:
Examples: cost-share agreement with U.S. Forest Service, 124 Permit, 3A Authorization, Air Quality Major Open Burning Permit.

N/A

3. ALTERNATIVE DEVELOPMENT:
Describe alternatives considered and, if applicable, provide a brief description of how the alternatives were developed. List alternatives that were considered but eliminated from further analysis and why.

Alternative A – No Action

This alternative would not allow operation of machinery within the 50-foot SMZ. Minimum retention standards would be recognized per SMZ Law requirements.

Alternative B – Action
This alternative would allow for the timber harvest actions outlined under *Type* and Purpose of Action above.

This AP would be issued under this EA Checklist for a period of two years.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:
Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify direct, indirect, and cumulative effects to soils.

A query of the physical soil properties using the NRCS Web Soil Survey showed that the harvest area is primarily in the Shaboom boulder-Lumpgulch, very bouldery outcrop complex name with a not rated risk to erosion. The soil is moderately suited to mechanical harvesting and adhering to Forestry Best Management Practices (BMP's) would protect the soil.

Alternative A – No Action

No Anticipated impacts.

Alternative B – Action

Mitigation measures over the entire project area would ensure that soils are protected regardless of classification.

Mitigation measures would include:

- Restricting operation to periods when ground disturbance can be minimized as outlined in Type and Purposes of Action.
- The lead end of logs will be suspended above ground during skidding.
- No turning of equipment in the SMZ.
- Seeding disturbed ground or placement of slash to prevent unwanted erosion.

Based on implementation of BMP's and the planned mitigation there would be minimal risk of direct impacts and low risk of indirect or cumulative effects to soils.

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5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify direct, indirect, and cumulative effects to water resources.

State Creek is a small Class 1 stream that contributes surface water to Bigfoot Creek. A Search on Montana Fish Wildlife and Parks website did not confirm fish presence or absence in State Creek.

Alternative A – No Action

No equipment operation would be allowed inside the 50' SMZ. Minimum retention standards would be recognized. Any tree harvesting would be completed using hand felling and skidding by cable or left standing. Minimal direct, indirect, and cumulative impacts to water quality would be expected and no measurable increase to water quantity would be expected from this alternative.

Alternative B – Action

Equipment operation in the SMZ would not be expected to introduce sediment to the stream due to mitigation measures described section 1 *Type and Purpose of Action*. Adherence to Forestry BMPs would minimize the risk of sediment delivery into the stream.

Overstory removal would reduce shade in some portions of the lineal extent along the stream channel. However, shade is mainly provided by the trees residing on the south side of State Creek as well as hardwoods encompassing both sides of the creek.

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6. AIR QUALITY:

What pollutants or particulate would be produced (i.e., particulate matter from road use or harvesting, slash pile burning, prescribed burning, etc)? Identify the Airshed and Impact Zone (if any) according to the Montana/Idaho Airshed Group. Identify direct, indirect, and cumulative effects to air quality.

N/A

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify direct, indirect, and cumulative effects to vegetation.

Alternative A – No Action

Under this alternative, dead and dying trees would remain to achieve minimum retention requirements. Residual trees would eventually fall and seed crops from conifer encroachment would not be reduced.

Alternative B – Action

Under this alternative, dead and dying trees (mainly Douglas-fir) would be removed. Healthy, live, insect free trees and brush would be retained and protected. Bank edge trees and trees leaning toward the creek would be retained unless they pose a risk to stream stability or structure. Removal of insect impacted trees would reduce conifer encroachment and increase health in residual conifers. Due to operating restrictions and mitigation measures, no unacceptable impacts are anticipated with this action alternative.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify direct, indirect, and cumulative effects to fish and wildlife.

Alternative A – No Action

Under this alternative there is no anticipated impact on wildlife habitats and minimum retention standards would be adhered to within the SMZ. Disturbance during harvest would have short-term impact to wildlife use through the area though not within the bounds of the SMZ.

Alternative B – Action

The removal of unhealthy, dead, and dying trees would reduce snag habitat for birds and small mammals. Healthy live trees would be retained as well as hardwoods would remain. Harvest operations are not expected to introduce sediment delivery into the creek. Disturbance during harvest operations would have a short-term impact on wildlife use in the area. Leaving one to two dead trees every 100 feet will provide habitat for avian species.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify direct, indirect, and cumulative effects to these species and their habitat.

Alternative A – No Action

No additional impacts.

Alternative B – Action

A query of the Montana Natural Heritage Program identifies several species (endangered, threatened, sensitive, of special concern) with possible habitat within Township 4N Range 4W. Due to human presence, the harvest area is not ideal habitat for many of these species. Based on implementation and planned mitigations there is expected to be minimal to no additional impacts to aquatic life and fisheries. Direct, indirect, and cumulative impacts are expected to be minimal and short-term.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine direct, indirect, and cumulative effects to historical, archaeological or paleontological resources.

Although no cultural or paleontological resources are known to exist in the project AP. a systematic inventory of such resources has not occurred. Because this project is not located on state land, the DNRC has no jurisdiction to require professional level inventories to identify or develop treatment plans for these national register eligible properties.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify direct, indirect, and cumulative effects to aesthetics.

Alternative A – No Action

No expected impacts. Dead and dying trees would be visible. forest encroachment may continue.

Alternative B – Action

Potential impacts may be perceived as adverse by recreationists, landowners, and travelers. The removal of insect killed and suppressed Douglas-fir would look unsightly in the short term. Over time naturally occurring regeneration of native vegetation will eventually replace aesthetic quality damaged by disturbance.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify direct, indirect, and cumulative effects to environmental resources.

N/A

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

In the last two years there have been no listed projects or plans near the project area.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

Log truck traffic and logging equipment in the area could create hazards on the public roads near the project area in the short-term while harvest operations are occurring. As there are already planned logging operations occurring near this project AP additional impacts are determined to be minimal.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

N/A

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify direct, indirect, and cumulative effects to the employment market.

Project would be allowed for a period of two years. Harvest of trees in the AP area would employ one logging crew for a short period.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify direct, indirect, and cumulative effects to taxes and revenue.

Negligible amounts would be anticipated with implementation of the action alternative.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify direct, indirect, and cumulative effects of this and other projects on government services

N/A

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

This Alternative Practice would allow for timber salvage in an area considered high risk for wildfire under the Tri-County Regional Community Wildfire Protection Plan.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify direct, indirect, and cumulative effects to recreational and wilderness activities.

N/A

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify direct, indirect, and cumulative effects to population and housing.

N/A

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

N/A

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

N/A

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify direct, indirect, and cumulative economic and social effects likely to occur as a result of the proposed action.

N/A

EA Checklist Prepared By:	**Name:**	Kyle Harrington	**Date:**	5/8/2023
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V. FINDING

25. ALTERNATIVE SELECTED:

Alternative B - Action

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

No significant impacts to the integrity and function of the SMZ will occur with the implementation of operating restrictions and mitigation measures.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

EA Checklist Approved By:	**Name:**	Brian Robbins		
	Title:	Unit Manager		
Signature:	BSR		**Date:**	6/19/2023